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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
0553-0397

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on July 21, 2008

Signature Elizabeth Ortiz

Typed or printed name Elizabeth C. Ortiz

Application Number	Filed
10/773,587	February 6, 2004

First Named Inventor
Masahiro Takahashi

Art Unit	Examiner
2879	Sikha Roy

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 34,225

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

Mark J. Murphy
Signature

Mark J. Murphy
Typed or printed name

(312) 236-8500
Telephone number

July 21, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

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Attorney Docket No. 0553-0397

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)
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Masahiro TAKAHASHi)
)
Serial No: 10/773,587)
)
Filed: February 6, 2004)
)
Art Unit: 2879)
)
Examiner: Sikha Roy)
)
For: Light Emitting Device Having Transparent Film Varying Refractive Index And ManufacturingMethod Thereof)
)
Confirm No.: 6735)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REASONS FOR REVIEW OF FINAL REJECTION

Dear Sir:

In support of the Notice of Appeal and Pre-Appeal Brief Request For Review filed herewith, Applicant is requesting review for the following reasons:

Applicant submits that there is clear error in the Examiner's rejection in the Final Rejection of March 19, 2008 and the Advisory Action of July 10, 2008.[1]

Claim Rejections - 35 USC §103

In the Final Rejection and the Advisory Action, the Examiner continues to reject Claims 5, 8, 15, 19, 24, 27 under 35 USC §103 as being unpatentable over Yamazaki et al. (U.S.

[1] In the Final Rejection, in addition to the §103 rejection discussed herein, the Examiner also objected to the drawings under 37 CFR 1.83(a). In response, Applicant filed Amendment F on June 19, 2008. The Advisory Action of July 10, 2008 entered that amendment, and it is believed withdrew the objection to the drawings.

5,003,221) and further in view of Shimizu (which is believed to be U.S. 5,003,221) and further in view of Toyoshima et al. (U.S. 2001/0016262). This rejection is in clear error as there is no proper reason to combine these references to arrive at the claimed invention.

More specifically, in the Final Rejection, the Examiner admitted that Yamazaki does not disclose a transparent film comprising silicon oxynitride over the second electrode and the refractive index of the transparent film gradually decreasing from a first interface at a side of the second electrode to a second interface at a side resin. These or similar features are in independent Claims 5, 15, and 24. The Examiner, however, contended that Shimizu discloses:

> "a thin film layer formed between two adjacent layers, the refractive index of the thin film layer is changed to be approximated to those layers toward the interfaces so that a difference in refractive index at the layer interface is minimized."

The Examiner then concluded that:

> "it would have been obvious to one of ordinary skill in the art to include a transparent film formed over the transparent second electrode (refractive index 1.9) and between the second electrode and the resin (refractive index about 1.49) filling the gap of display of Yamazaki ('431), the refractive index of the transparent film decreasing from (1.9 to 1.5) the first interface (at the side of the second electrode) to the second interface (at the side of resin) as taught by Shimizu for minimizing reflection at interfaces between the layers and efficiently light emission with high luminance."

However, the thin film (i.e. thin film 12) in Shimizu is provided as follows: (a) a thin film 12 between a substrate 11 and a lower electrode layer 13 and below an upper or second electrode 17 (see e.g. Figs. 1, 2), or (b) a thin film 22 between a lower electrode layer 23 and a dielectric layer 24 and below an upper electrode 27 (see Figs. 3, 4); or (c) a thin film 32 between a first dielectric layer 34 provided over a lower electrode 33 and an electroluminescent layer 35 and a thin film 320 between the electroluminescent layer 35 and a second dielectric layer 36 provided below an upper electrode 37 (see Figs. 5, 6). Hence, Shimizu does not disclose or suggest the claimed feature of a transparent film comprising silicon oxynitride formed over the second electrode, as in independent Claims 5, 15 and 24. Therefore, Shimizu also does not disclose or

suggest the feature of a refractive index of the transparent film gradually decreases from a first interface at a side of the second electrode to a second interface at a side of the substance, as in Claims 5, 15 and 24.

In the Advisory Action, the Examiner argues that:

> "Shimizu teaches that including the refractive index varying transparent film such that the refractive index can be approximated to those of the layers at the bottom and at the top, difference in refractive index can be minimized and hence the reflection at the interfaces can be minimized. Therefore, it would have been obvious to include the transparent film of varying refractive index formed over the second electrode..."

However, what is disclosed in all the illustrated cases in Shimizu is that the thin film is located below the second electrode (see Figs. 1-6 in Shimizu). There is no disclosure or suggestion in Shimizu of locating the thin film (or transparent film) over the second electrode. Hence, there is no reason, motivation or suggestion in Shimizu to locate the thin film over the second electrode, as in independent Claims 5, 15 and 24 of the present application.

Since Yamazaki does not disclose or suggest the claimed transparent film, Yamazaki also does not provide any reason, motivation or suggestion to locate the transparent or thin film over the second electrode.

Therefore, if it were proper to combine Yamazaki and Shimizu (which Applicants do not admit is proper), then in the hypothetical combination, the thin film would be located below the second electrode. This is clearly different than the claimed invention.

The only reason for locating the thin film over the second electrode in the hypothetical combination is hindsight reconstruction using the claim as a blueprint. However, it is well established law that such hindsight reconstruction, which has no basis except the claimed invention, is improper and clear error.

Under the law, a prima facie case of obviousness cannot be based on a combination of references wherein the combination of references is based on hindsight reconstruction using the

claimed invention as a template. In re Fritch, 972 F.2d 1260, 1266 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); In re Oetiker, 24 USPQ2d 1443, 1447 (Fed. Cir. 1992). As noted by the US Supreme Court in KSR, "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1742 (US 2007).

As the Federal Circuit stated in McGinley v. Franklin Sports, Inc., 60 USPQ2d 1001, 1008 (Fed. Cir. 2001), "[t]he genius of invention is often a combination of known elements which in hindsight seems preordained." The Court in KSR noted that "...inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." KSR, 127 S. Ct. at 1741.

As a result, "[i]t is impermissible to use the claimed invention as an instructional manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 972 F.2d at 1266, 23USPQ2d at 1784. Combining references in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. In re Oetiker, 24 USPQ2d at 1444-1446 (Fed. Cir. 1992).

Therefore, based on the teachings therein, Yamazaki and Shimizu cannot be properly combined to disclose or suggest the claimed invention. Further, the combination of Yamazaki and Shimizu in the §103 rejection to arrive at the claimed invention is improper and clear error.

In addition, there is no reason, motivation or suggestion to combine Toyoshima with Yamazaki and Shimizu. More specifically, Toyoshima appears to disclose a coating formed on the outside surface of a substrate or article (i.e. for reducing the reflection between the substrate and the outside air). In contrast, Yamazaki and Shimizu appear to disclose a light emitting

device wherein light emitted from the light emitting element travels toward the outside through some substances and a substrate. For example, in Shimizu, a thin film layer 12 is provided *between* an electroluminescent layer 15 and a substrate 11 (or 21 or 31). As a result, the thin film layer in Shimizu is provided *inside* of a device (and not formed in contact with the outside or outside air). In contrast, in Toyoshima, the coating is formed between the substrate and the outside air and is formed in contact with the outside or outside air.

There is no reason, motivation or suggestion to substitute Toyoshima's coating formed between the substrate and the outside for Shimizu's thin film layer formed inside the device. Further, no explanation is provided in the rejection for such combination. This also is clear error.

Therefore, there is clear error in the rejection of Claims 5, 8, 15, 19, 24 and 27 under §103, and the §103 rejection should be reversed.

Conclusion

Accordingly, Applicant respectfully requests review of the §103 rejection, reversal of the §103 rejection, and allowance of the claims.

If any fee is due for this request, please charge our deposit account 50/1039.

Favorable consideration is earnestly solicited.

Date: July 21, 2008

Respectfully submitted,

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